

**REMARKS**

This paper is responsive to the Office Action dated October 23, 2006. Entry of the remarks submitted herein and reconsideration of the claimed subject matter is respectfully requested.

The Office Action has been carefully reviewed and the foregoing amendments are made in response thereto. In view of the above amendments and following remarks, Applicants respectfully request reconsideration and reexamination of this application and timely allowance of the pending claims.

By this Amendment, claims 6 and 7 have been canceled. Claims 1, 27-31 and 34-37 have been amended to include the word “synthetic” and the features of specific peptides and proteins. Support for the word “synthetic” can be found, for example, in paragraphs [0043] and [0081] of the specification where synthetic biomaterials are described. Support for the features of specific peptides and proteins can be found, for example, in now canceled claims 6 and 7. Applicants respectfully submit that no new matter has been introduced by the amendments to the claims.

Upon entry of this amendment, claims 1-5 and 8-37 are pending in the application, of which claims 3, 8-18, 20-24 and 33 are withdrawn from consideration.

**Summary of Office Action**

1. Claims 1, 4-7, 25-32 and 34-37 are rejected under 35 U.S.C. § 101, as allegedly being directed to non-statutory subject matter.

2. Claims 24, 27 and 34 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter.

3. Claims 1, 4-6, 26 and 31 are rejected under 35 U.S.C. § 102(b) as being anticipated by Kleinman *et al.* (Biochemistry 21: 6188-6193 (1982)).

4. Claims 1, 2, 4, 19, 25, 26, 29 and 31 are rejected under 35 U.S.C. § 102(b) as being anticipated by Cilento *et al.* (U.S. Patent 4,773,408).

5. Claims 1, 2, 4-6, 19, 25, 26 and 31 are rejected under 35 U.S.C. § 102(e) as being anticipated by Miyamoto *et al.* (U.S. 2004/0136977A1).

**Specification Objections**

The specification is objected to because the Examiner alleges the following informalities:

The Examiner alleges that in paragraph [0012] and paragraph [0080], what was loaded in lane 2 is not described. In response, the description of Lane 2 has been provided in these two paragraphs.

The Examiner alleges that in paragraph [0038], the application's serial number is missing. In response, Applicants have provided the U.S. patent publication number of that application.

The Examiner alleges that in paragraph [0070], the third line has a right parenthesis after the word "carbodiimide" without a corresponding left parenthesis. In response, the right parenthesis is deleted.

The Examiner alleges that in paragraph [0071], the third sentence is difficult to comprehend. In response, the word "to" in the third sentence is deleted. The meaning of the sentence should now be clear.

The Examiner alleges that in paragraph [0073], there are two units of measurement with the number 30. In response, the degree symbol "°C" after "30" is deleted. The meaning of the sentence should now be clear.

In view of these amendments, Applicants respectfully request the objections to the specification be withdrawn.

**Claim Rejections-35 U.S.C. § 101**

Claims 1, 4-7, 25-32 and 34-37 are rejected under 35 U.S.C. 101 because allegedly the claimed invention is directed to non-statutory subject matter. The Examiner asserts that the claims are drawn to a product of nature. Without acquiescing to the merits of the rejection, Applicants have amended claims 1, 27-31 and 34-37 to insert the word "synthetic" before the word "biomaterial," in accordance with the Examiner's suggestions. Claims 4-7, 25 and 26 depend variously and ultimately from claim 1. As such, these dependent claims must be read to include the elements set forth in their respective independent claim and any other intermediate claims from which they depend. Therefore, the dependent claims also carry the "synthetic" limitation of their independent claims. Reconsideration and withdrawal of the rejection is respectfully requested.

**Claim Rejections-35 U.S.C. § 112, Second Paragraph**

Claims 24, 27 and 34 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter. The Examiner asserts that in claim 24, it is unclear what the abbreviation “SIBS” is describing. Applicants note that claim 24 has been withdrawn from consideration and therefore is not dealt with at the present time.

The Examiner contends that it is unclear whether claims 27 and 34 describe individual crosslinking of the bioactive polymer or the crosslinking of the bioactive polymer to the biocompatible polymer. In response, Applicants assert that the term in claims 27 and 34 is not unclear. It refers to both the crosslinking of the bioactive polymer and the crosslinking of the bioactive polymer to the biocompatible polymer. The Examiner’s attention is directed to paragraph [0056] at page 21 of the specification where it teaches interpenetrating polymer networks by chemical crosslinking. In the same paragraph, it also teaches the polymerization of a biocompatible polymer with the desired proteoglycan and peptide. Applicants respectfully request the rejection be withdrawn.

**Claim Rejections-35 U.S.C. § 102(b)**

Claims 1, 4-6, 26 and 31 are rejected under 35 U.S.C. § 102(b) as being anticipated by Kleinman *et al.* (Biochemistry 21: 6188-6193 (1982)). The Examiner asserts that Kleinman *et al.* describe harvested tumor tissue that comprises type IV collagen, laminin and heparin sulfate. Applicants respectfully traverse.

Kleinman *et al.* teach isolation and characterization of naturally occurring Type II procollagen, laminin and heparan sulfate proteoglycan from tumor tissues. In contrast, the instant claims are directed to artificial biomaterials. A reference cannot anticipate an invention unless it teaches each element of the invention as claimed. Because Kleinman *et al.* do not teach the limitation of an artificial biomaterial, Kleinman *et al.* do not anticipate the claims as amended. Applicants respectfully request the Examiner to reconsider and withdraw the rejection.

Claims 1, 2, 4, 19, 25, 26, 29 and 31 are rejected under 35 U.S.C. § 102(b) as being anticipated by Cilento *et al.* (U.S. Patent 4,773,408). The Examiner asserts that Cilento *et al.* teach an occlusive wound dressing consisting essentially of a flexible closed cell polyurethane foam having one or more water dispersible, water swellable, and/or water absorbing agents selected from the group consisting of sodium carboxymethylcellulose,

pectin, gelatin, guar gum, collagen, karaya, substantially water insoluble starch-acrylonitrile graft copolymer, and substantially water insoluble cross-linked dextran, a thin polymeric film or a skin laminated to one surface of said foam, and a pressure sensitive adhesive laminated to the other surface of said foam, etc. Applicants respectfully traverse.

As amended, claims 1 and 31 incorporate the features of original claims 6 and 7, which are not subject to this anticipation rejection. A reference cannot anticipate an invention unless it teaches each element of the invention as claimed. Because Cilento *et al.* do not teach the element of a cell adhesion peptide, Cilento *et al.* do not anticipate the claims as amended. Applicants respectfully request the Examiner to reconsider and withdraw the rejection.

Claims 1, 2, 4-6, 19, 25, 26 and 31 are rejected under 35 U.S.C. § 102(e) as being anticipated by Miyamoto *et al.* (U.S. 2004/0136977A1). The Examiner's rejection of these claims is overcome by amendments of Claims 1 and 31 where features of claims 6 and 7 are introduced. Miyamoto *et al.* do not describe these peptides and proteins as the Examiner has determined that Miyamoto does not apply to claim 7. Accordingly, the Examiner is respectfully requested to withdraw the pending rejection of Claims 1, 2, 4-6, 19, 25, 26 and 31 under 35 U.S.C § 102(e).

Except for issues payable under 37 C.F.R. 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account 50-0310. This paragraph is intended to be a constructive petition for extension of time in accordance with 37 C.F.R. 1.136(a)(3).

Respectfully submitted,

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